

# **EXHIBIT 207**

## **REDACTED**

Message

**From:** Vahab Mirrokni [REDACTED]  
**Sent:** 8/18/2015 2:25:29 PM  
**To:** [REDACTED]  
**CC:** George Levitte [REDACTED]; [REDACTED]  
**Subject:** Re: effect of removing second bid

Update on this: I talked to George on this topic, and came out that "Not charging the same seat is fine (and can be combined with other ideas we had), but only if we make sure that GDN does not submit bids from the same seat (with the same definition of seat)." The important point here is to make sure that we don't lose a good amount of revenue due to losing GDN pricing itself.

Thanks,  
Vahab

On Tue, Aug 18, 2015 at 10:06 AM, [REDACTED] wrote:  
+ [REDACTED]

On Wed, Jul 22, 2015 at 3:25 PM, Vahab Mirrokni [REDACTED] wrote:  
It's a weird opt-in method since it's only natural for all bidders to opt in. If GDN does opt in, we will lose too much revenue. If GDN does not opt in & the option is available, it sounds like colluding... I'd rather talk to you in person about this part.

On Wed, Jul 22, 2015 at 3:19 PM, George Levitte <[glevitte@google.com](mailto:glevitte@google.com)> wrote:  
Is there any reason why GDN wouldn't like this?

Individual bidders would basically get to say whether this change impacts their seats. GDN would get to opt-out of the change any anyone interested (e.g. DBM, MM, etc) would get to say yes.

From a business perspective making this opt-in has a side benefit that it helps protect us against revenue downside. Not sure about legal, but if we want to explore the idea further I can discuss with [REDACTED]

On Wed, Jul 22, 2015 at 3:10 PM, [REDACTED] wrote:  
@George: opt in at bidder/buyer level is certainly possible technically. I can't speak to whether this is ok legally and desirable from business perspective (e.g. how would gdn feel about this).

On Wed, Jul 22, 2015 at 2:43 PM, George Levitte <[glevitte@google.com](mailto:glevitte@google.com)> wrote:  
Can it be an opt-in at the bidder level instead of auto-on for all accounts?

On Wed, Jul 22, 2015 at 2:12 PM, Vahab Mirrokni <[REDACTED]> wrote:  
I was just talking to [REDACTED] about this and George's idea. To be on the same page, we all agree that applying this idea to GDN bids will need very careful analysis and most probably it will be a bad idea since it will have negative revenue impact. So in order to think about George's idea, we should have an argument for excluding GDN (& I don't see that argument now).

On Tue, Jul 21, 2015 at 9:47 AM, George Levitte <[REDACTED]> wrote:  
Unless we're willing to explain how DRS and/or RPO work (seems unlikely) bidders won't understand / appreciate / trust the value of the credit being offered. So although the credit system seems logical, it probably won't convince bidders to start voluntarily 2nd-pricing themselves.

In general I'm not sure either of the credit systems (#2 or #4) make sense unless we are willing to explain how DRS and/or RPO work to bidders.

On Tue, Jul 21, 2015 at 9:14 AM, Vahab Mirrokni <[REDACTED]> wrote:

Re the credit system, I agree that explaining the credit system may not be feasible, but we may not need to explain the details. Just saying that there are discounts. The plan would be to announce it after we build the credit system into DRS and DRPO. *Ideally, we can let them run live experiments and decide, & if DRS+DRPO are effective enough, they will observe the pricing advantage via a live experiment.*

Re making sure "NOT to charge them if the bid come from the same seat in the same auction", it is nice as it's clean, but it does lose a revenue opportunity. Nevertheless, we can combine it with the credit system at the bidder level.

On Tue, Jul 21, 2015 at 9:11 AM, [REDACTED] wrote:

I agree with [REDACTED] that commercializing the credit scheme will be a tough sell and I'd rather not do it if I can help it.

As for #2 (current RPO exemption policy), this is a compromise that allowed us to launch RPO while leaving AdWords alone (because they do send 2 bids). The policy is easily game-able (just submit a \$0.01 second bid with every "real" bid) and as a result we need to monitor it and be willing to change it if we see sufficient amount of gaming in the wild. That is where #4 does come in -- again, with a strong preference to minimize talk of it externally.

On Tue, Jul 21, 2015 at 9:05 AM, [REDACTED] wrote:

I don't think we will be able to explain it to them in much detail, because I don't think we will want to expose how DRS works. Because of that, I think it will be hard to use the credit argument to get people to make second bids.

On Tue, Jul 21, 2015 at 9:02 AM George Levitte <[glevitte@google.com](mailto:glevitte@google.com)> wrote:

No worries.

Re: #2... Are you guys planning to commercialize this with buyers in order to convince them to send multiple bids, or is this going to remain as a hidden credit that they don't know about?

On Tuesday, July 21, 2015, [REDACTED] wrote:

My analysis is at the seat level (i've never looked at the bidder level). Thanks for clarifying your proposal, and apologies for misrepresenting.

On Tue, Jul 21, 2015 at 8:39 AM, George Levitte <[glevitte@google.com](mailto:glevitte@google.com)> wrote:

Hey [REDACTED]

Quick correction. I think you misunderstood the proposal I'm trying to investigate. It's to prevent 2nd-pricing at the seat level... NOT at the bidder level as described in your email.

So one DBM child seat would still be able to 2nd-price another DBM child seat.

Does your existing analysis only look at doing this at the bidder level, or was that at the seat level?

On Tuesday, July 21, 2015, [REDACTED] wrote:

+ [REDACTED] fyi

Hey,

there are a couple of things going on here, and my clumsy attempt to relate them together:

#1. George is looking into a proposal to completely remove all but the winning bid from each buyer (and by buyer, he may mean parent seat instead of child seat/buyer\_network\_id as we typically assume, so that even two child seats managed by the same parent wouldn't second price each other). Apparently some buyers asked for this. The buyers say if we do this they'll be encouraged to submit multiple bids in case the top one gets filtered. The theory is that the increase in bidding will bring in revenue that offsets the loss of revenue we're currently getting from self competition. George was looking for data to support or refute this theory.

#2. We have a policy in place to exempt buyers who submit two bids from dynamic pricing. This policy is saving buyers money -- a few thousand dollars per day, same order of magnitude as revenue from self-pricing at child-seat level.

#3. I was telling George I have simulation data for #1. When we looked at it, we were surprised to see that the simulated revenue loss from removal of second bid is sometimes revenue gain. I believe this is because the simulator includes the RPO exemption logic from #2.

#4. We have these fancy proposals for keeping credit/debit accounts for buyers, including "The case for encouraging buyers to declare two bids", proposed as replacement for #2 and suggested as part of design for dynamic revshare v2.

#4 and #1 are addressing essentially the same problem in different and potentially incompatible ways, so I thought I'd make sure folks are aware of what everyone is doing. It also seems the monetary impact of #2 is on the order of [REDACTED] when we launch a more powerful RPO, so it makes sense to keep it on the radar.

On Tue, Jul 21, 2015 at 12:30 AM, Vahab Mirrokni <[REDACTED]> wrote:

Thanks [REDACTED] and George. I am not sure if I understand all the numbers here. Thinking more about it, I wanted to pursue a similar idea by even changing the "allocation rule" through using these credit systems. It might be good to meet in person and discuss your data analysis, & brainstorm about the ideas in the document and extra ideas (one proposed by George in the document - about explicitly not charging them if they 2nd-price themselves, and one about changing even the allocation).

On Mon, Jul 20, 2015 at 5:00 PM, [REDACTED] wrote:

+ [REDACTED] vahab, [REDACTED]

FYI, it appears to me that the policy of exempting bidders with two bids from dynamic pricing is actually saving money for some buyers. Just in case we'd want to open up the conversation about whether to give buyers credit for the second bid.

George was looking into deduping (i.e. removing the second bid of a buyer from auction) per a buyer's request.

[REDACTED]